

FIG. 1

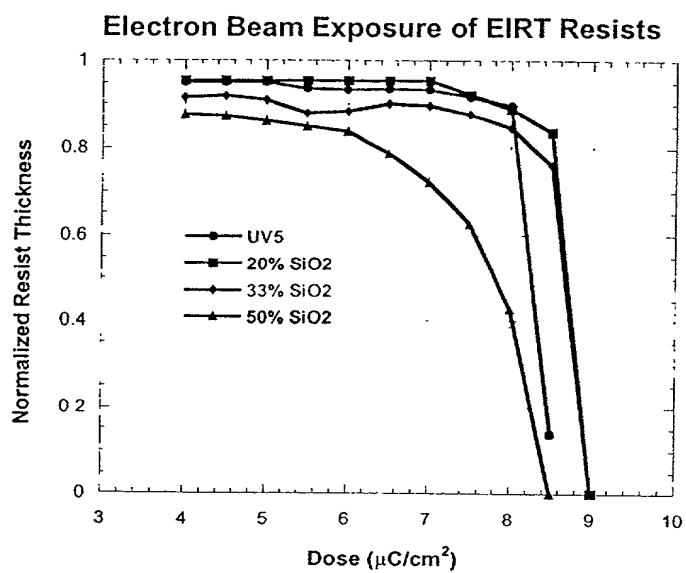


Figure 1. Comparison of contrast curves of EIRT resists and the commercial resist UV5 with electron beam exposure.

FIG. 2

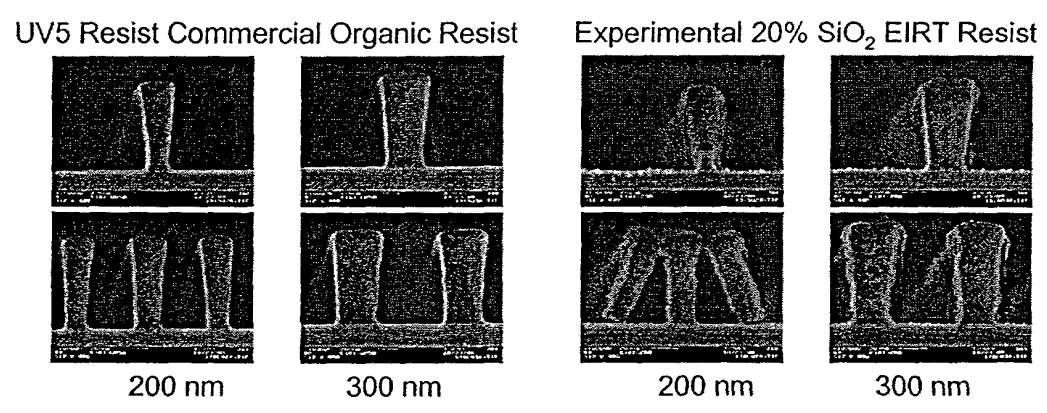


Figure 2. Comparison of electron beam imaging of 200 and 300-nm dense and isolated lines of an EIRT resist and the commercial resist UV5.

FIG. 3

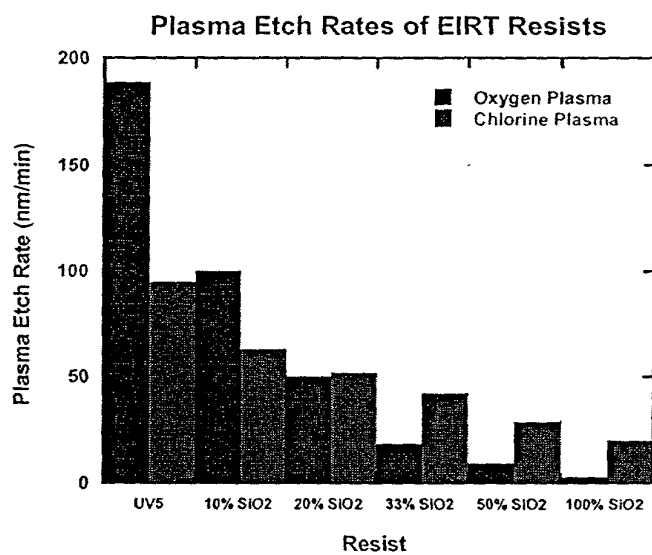


Figure 3. Comparison of RIE etch rates of resists containing increasing amounts of SiO_2 in both an oxygen and chlorine plasma.

FIG. 4

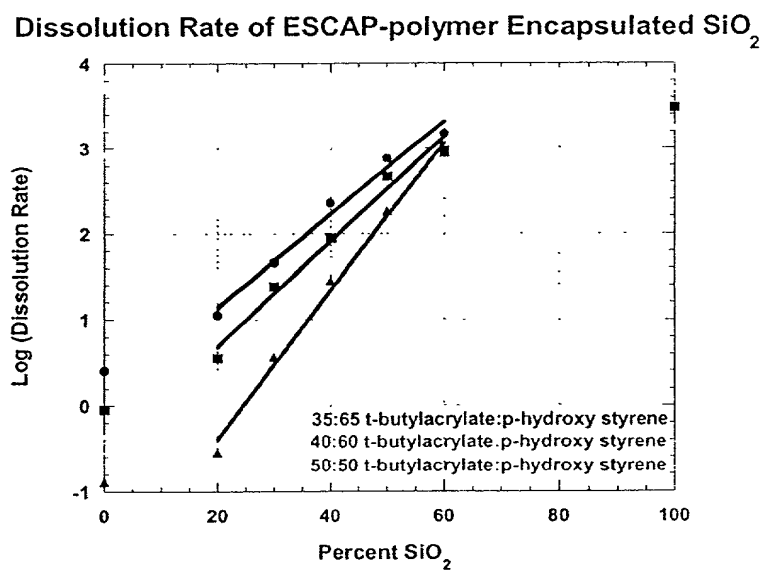
Figure 4. Dissolution rates of three different polymers with varying levels of SiO_2 incorporation.

FIG. 5

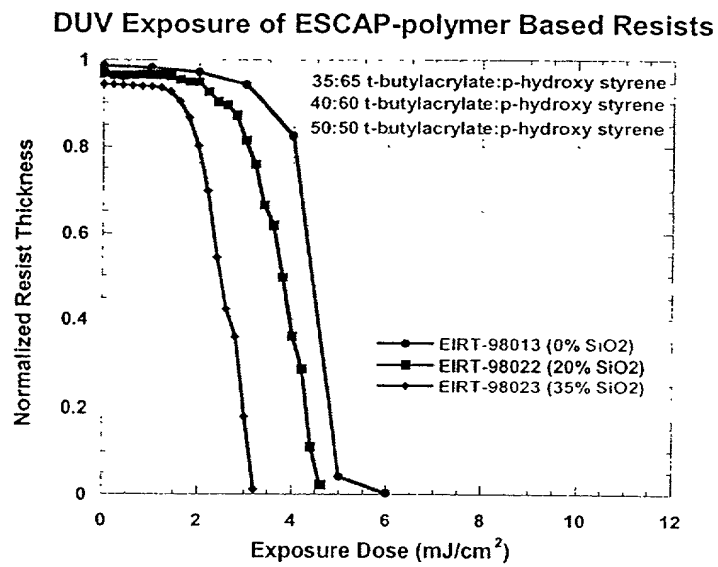
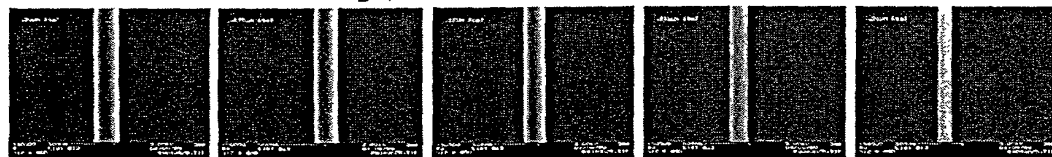


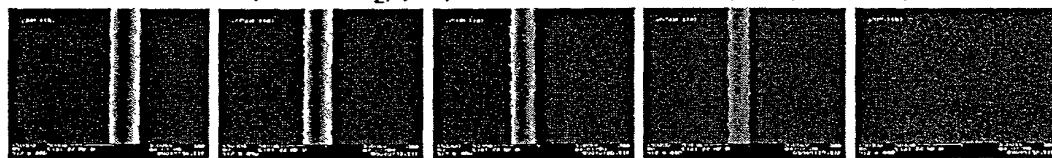
Figure 5. Comparison of contrast curves of three EIRT resists of improved formulation.

FIG. 6

EIRT 98013 Resist (0% SiO₂) prepared from 35:65 t-butylacrylate:p-hydroxystyrene



EIRT 98022 Resist (20% SiO₂) prepared from 40:60 t-butylacrylate:p-hydroxystyrene



300 nm

275 nm

250 nm

225 nm

200 nm

Figure 6. Comparison of 248-nm imaging (NA = 0.48) of isolated lines of a 20% SiO₂ containing EIRT resist and a resist containing no SiO₂.